

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A method for simulating interdependent infrastructures, comprising the steps of ~~A computer program product embodied on a computer readable medium to facilitate:~~

[[S]]selecting from a set of infrastructure systems a subset comprising a plurality of ~~an~~ interdependent infrastructure systems;

equivalencing the subset;

creating a plurality of agents to interact with the subset; [[and]]

simulating multi-scale agent interactions; and

presenting results of the simulating.

2. (Currently Amended) The ~~product~~method of claim 1, wherein the subset is being selected to represent a geographic region.

3. (Currently Amended) The ~~product~~method of claim 1, further comprising the steps of:

Selecting components for two way analysis, and wherein the simulation occurs across concurrent time.

4. (Currently Amended) The ~~product~~method of claim 1, further comprising the steps of

selecting a plurality of infrastructures to simulate; and

connecting the infrastructures, including the steps of

screening candidate interconnections; and

assigning candidates a likelihood of connection.

5. (Currently Amended) The ~~product~~method of claim 1, wherein the equivalencing step includes the steps of:

identifying connections extending outside of the subset; and

calculating flow limit for each connection extending outside the subset.

6. (Currently Amended) The ~~product~~method of claim 1, wherein the creating agents step includes the steps of:

creating agents from templates and data for an infrastructure; and

creating agents at equivalenced connections.

7. (Currently Amended) The ~~product~~method of claim 1, wherein the creating agents step includes the steps of:

creating agent conditions through time;

re-equivalencing the infrastructure; and

continuing the simulation until a steady state is achieved.

8. (Canceled)

9. (Currently Amended) The ~~products~~system of claim 16, comprising a candidate screener for determining the likelihood of interconnections.

10. (Currently Amended) The ~~products~~system of claim 16, comprising a flow limit calculator for equivalencing connections extending outside a subset.

11. (Currently Amended) The ~~products~~system of claim 16, comprising:

a data gatherer for creating agents; and

templates for creating agents.

12. (Currently Amended) The ~~products~~system of claim 16, comprising a time advancer for advancing agent conditions through time.

13-15. (Canceled)

16. (New) A computer implemented system for simulating interdependent infrastructures, comprising:

- a central processing unit (CPU); and

- a storage device coupled to the CPU and having information stored therein for:

  - simulating interdependent infrastructures by:

    - selecting a group of infrastructures to analyze;

    - selecting a subset of infrastructures from the group based on at least one criteria, the subset comprising fewer than all of the infrastructures in the group;

    - interconnecting the infrastructures; and

    - equivalencing the subset;

  - creating a plurality of agents to interact with the subset;

  - simulating multi-scale agent interactions; and

  - presenting results of the simulation of multi-scale agent interactions.